APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/051,547	04/07/1998	TAKAO YAMAGUCHI	MTS-2570	8127

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EXAMINER
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ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 March 2003</u> .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-15,20,21 and 24-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-15,20,21 and 24-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>24</u> .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 3/3/03 have been fully read and considered but they are not persuasive.

Regarding lines 7-8 on page 9 of applicant's remarks, applicant asserts that Clapp does not disclose or suggest a picture identifier for each picture as an I, P or B picture. The examiner respectfully disagrees because Lane is used to teach this limitation. As indicated in the rejection, Lane discloses the picture identifier for each picture in fig.8a, element 102 and col.25, lines 23-42. Lane discloses the identification of various data types and thus by identifying the various video data types, the picture coding method will be determined. Also, Lane discloses, in col.7, lines 1-4, that in MPEG video encoding standard, there are I, P and B pictures that are identified. Further, in lines 41-42, Lane discloses that in MPEG, the frames (I, P and B) are arranged in ordered groups. In other words, the I, P and B frames are prioritized to form this "ordered group" of frames or a GOP.

Regarding lines 8-9 on page 9 of applicant's remarks, applicant contends that Clapp does not disclose or suggest a priority identifier that is transmitted with the pictures. The examiner respectfully disagrees because Lane is used to teach this limitation. In figure 8a, Lane discloses element 109 is a transport encoder that controls what is being transmitted and how the video data is prioritized, where element 105 is a prioritizer that prepares the pictures for transmission with priority identifiers.

Regarding lines 9-13 on page 9 of applicant's remarks, applicant states Clapp

does not disclose or suggest that each priority identifier is used by the picture decoding

apparatus to determine whether each picture should be processed or not be processed

according to a processing load or a processing capacity of the picture decoding

apparatus. The examiner respectfully disagrees. Lane discloses that each priority

identifier is used by the picture decoding in figure 9B, where element 208 is the

transport and priority decoder where the coded pictures are received along with the

priority identifiers, and that element 214 is the priority decoder that receives the priority

identifiers. Also, Lane's fig. 9B shows the "priority level" or priority identifier is used by

the picture decoding apparatus 208. Moreover, in col.35, ln.34-44, Lane discloses that

the priority decoder 214 combines the data of various priority identifiers into a data

stream of codewords that the element 216 can properly process for decoding.

Lane does not disclose the limitation of "determine whether each picture should

be processed or not be processed according to a processing load or a processing

capacity of the picture decoding apparatus, and each priority identifier is used

independently of the picture identifiers and independently of whether the picture is an I,

P or B picture." However, Clapp teaches the concept of determining whether frames

should be discarded or not for maintaining sync between the transporting end and the

receiving end (col.8, lines 56+; note the processing load or processing capacity of the

decoder buffer is checked to determine whether it is appropriate to drop or discard

frames regardless of the picture identifier or the picture type). Clearly, Clapp teaches

this well known concept of discarding frames to maintain sync. Therefore, it would have

been obvious to one of ordinary skill in the art to combine the teachings of Lane's system with the priority identifier with Clapp's data transmission/reception control system together as a whole for implementing picture processing according to the processing load of a terminal so as to prevent data overload on the receiving end so as to maintain a synchronous connection when receiving video information for display. Doing so would minimize data errors and discrepancies when viewing real-time video.

Regarding lines 13-15 on page 9 of applicant's remarks, applicant mentions that Clapp does not disclose or suggest each priority identifier being used independently of the picture identifiers, and independently of whether the picture is an I, P or B picture. Again, as stated before, Clapp teaches the concept of determining whether frames should be discarded or not for maintaining sync between the transporting end and the receiving end (col.8, lines 56+; note the processing load or processing capacity of the decoder buffer is checked to determine whether it is appropriate to drop or discard frames regardless of the picture identifier or the picture type). Clearly, Clapp teaches this well known concept of discarding frames to maintain sync. Please the above paragraphs and the rejection for elaboration.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-15, 20, 21, 24-26 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al. (5,377,051) in view of Clapp (4,562,466).

Regarding claim 1, Lane discloses a picture coding and decoding apparatus comprising:

a picture coding apparatus including picture coding means of coding pictures and providing a picture identifier for each picture as an I, P or B picture (fig.8a, element 102 and col.25, lines 23-42, Lane discloses the identification of various data types and thus by identifying the various video data types, the picture coding method will be determined, thus, Lane discloses a picture identifier for each picture),

priority providing means of correlating each coded picture with a priority identifier which assigns a priority level to one or more frames of the coded pictures (col.25, line 54 to col.26, line 40; Lane discloses the prioritization scheme for each coded picture information with a priority identifier or "priority level" as shown in the table on col.6 where there are eight priority levels), and

transmission control means of transmitting or recording the coded pictures with the priority identifiers (note fig.8a, element 109 is a transport encoder that controls what is being transmitted and how the video data is prioritized, where element 105 is a prioritizer that prepares the pictures for transmission with priority identifiers); and

a picture decoding apparatus including reception control means of receiving or reading the coded pictures with the priority identifiers (fig.9b, element 208 is the transport and priority decoder where the coded pictures are received along with the

priority identifiers, and that element 214 is the priority decoder that receives the priority

identifiers),

picture decoding means of decoding the coded pictures with the priority

identifiers (fig.9b, element 216 is the picture decoding means where the output of

element 216 goes to a display circuit for sequentially viewing the decoded pictures since

priority identifiers were taken into account, also, in col.35, ln.34-44, Lane discloses that

the priority decoder 214 combines the data of various priority identifiers into a data

stream of codewords that the element 216 can properly process for decoding), and

wherein said priority identifier is used by the picture decoding apparatus (note fig.

9B shows the "priority level" or priority identifier is used by the picture decoding

apparatus 208, moreover, in col.35, ln.34-44, Lane discloses that the priority decoder

214 combines the data of various priority identifiers into a data stream of codewords

that the element 216 can properly process).

Lane does not disclose the limitation of "determine whether each picture should

be processed or not be processed according to a processing load or a processing

capacity of the picture decoding apparatus, and each priority identifier is used

independently of the picture identifiers and independently of whether the picture is an I,

P or B picture." However, Clapp teaches the concept of determining whether frames

should be discarded or not for maintaining sync between the transporting end and the

receiving end (col.8, lines 56+; note the processing load or processing capacity of the

decoder buffer is checked to determine whether it is appropriate to drop or discard

frames regardless of the picture identifier or the picture type, thus I, P or B pictures can

be discarded). Clearly, Clapp teaches this well known concept of discarding frames to maintain sync. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lane's system with the priority identifier with Clapp's data transmission/reception control system together as a whole for implementing picture processing according to the processing load of a terminal so as to prevent data overload on the receiving end so as to maintain a synchronous connection when receiving video information for display. Doing so would minimize data errors and discrepancies when viewing real-time video.

Note claims 10, 12-15, 20, 21, 24-26 and 27-31 have similar corresponding elements.

As for claims 3-5 and 11, Lane discloses the prioritization of encoded video data (see col. 25 to col. 30 where Lane elaborates on the prioritization schemes, the details of how video data is prioritized, and the importance of prioritization).

Regarding claim 6, Lane discloses the determining of the priority depending on the execution rate (col.30, lines 46-50; note "3X" is the execution rate).

Regarding claims 7 and 9, Lane discloses the prioritization of intraframe coded pictures (see chart in col.30 where "intra-coded image" are prioritized at priority level 3-4).

Regarding claim 8, Lane discloses the prioritization of interframe coded pictures (see chart in col.30 where "inter-coded image" are prioritized at priority level 5-7).

Conclusion

2.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Allen Wong whose telephone number is (703) 306-

5978. The examiner can normally be reached on Mondays to Thursdays from 8am-

6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone

numbers for the organization where this application or proceeding is assigned are (703)

872-9314 for regular communications and (703) 872-9314 for After Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

Allen   Wong
Examiner
Art Unit 2613

AW
May 13, 2003

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
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